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(54) Title: METHOD FOR MANUFACTURING HIGH SILICON GRAIN-ORIENTED ELECTRICAL STEEL SHEET WITH SUPERIOR CORE LOSS PROPERTY

(57) Abstract: There is provided a method for manufacturing a high silicon grain-oriented electrical steel sheet. In a method for manufacturing a high silicon grain-oriented electrical steel sheet, comprising the steps of: reheating and hot-rolling a steel slab to produce a hot-rolled steel sheet; annealing the hot-rolled sheet and cold rolling the annealed steel sheet so as to adjust a thickness of the steel sheet; decarburization annealing the cold rolled steel sheet; and finish-annealing the decarburization annealed steel sheet for secondary recrystallization, the improved method further comprising the step of: coating a powder coating agent for siliconization on a surface of the decarburization annealed steel sheet in a slurry state, the powder coating agent including 100 part by weight of MgO powder and 0.5 - 120 part by weight of sintered powder of Fe-Si compound containing 25-70 wt.% Si sintered powder, the sintered powder having a grain size of -325 mesh; drying the resultant decarburization annealed steel sheet; and finish annealing the steel sheet under a conventional condition.

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